

**REMARKS/ARGUMENTS**

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-19 are pending in the present application. Claims 3, 4, 9, 11 and 14-16 are amended and claims 17-19 are added by the present Amendment.

The Office Action objects to claims 9 and 11; rejects claims 1-3 and 14-16 under 35 U.S.C. § 103(a) as unpatentable over Dahlman et al.; rejects claims 4-13 under 35 U.S.C. § 103(a) as unpatentable over Dahlman et al. in view of Burns; rejects claims 7-12 under 35 U.S.C. § 102(a) as anticipated by Tsg-Ran; rejects claims 4-6 under 35 U.S.C. § 103(a) as unpatentable over Tsg-Ran; and rejects claim 13 under 35 U.S.C. § 103(a) as unpatentable over Tsg-Ran in view of Dahlman et al.

Claims 9 and 11 have been amended in light of the objection noted in the Office Action. Accordingly, it is respectfully requested this objection be withdrawn.

Comments traversing the above-noted rejections will now be presented.

The present invention provides a method of simultaneously generating a primary scrambling code and a secondary scrambling code using a single code generator and applying a single masking function (see Fig. 4, for example). In particular, a primary scrambling code is generated by setting an initial value of a scrambling code to a binary value of "n" and the secondary scrambling code is generated by shifting an initial value of the primary scrambling code to simultaneously generate the primary scrambling code and the secondary scrambling code (see Fig. 5, for example).

In contrast, Dahlman et al. relates to a method which produces a different scrambling code for a normal mode and a slot mode (see col. 4, lines 64-67 and col. 5, lines 1-9). Dahlman et al. does not teach or suggest generating a secondary scrambling code by shifting an initial value of the primary scrambling codes. That is, in Dahlman et al., the primary and secondary codes are determined independently of each other.

In addition, Burns is directed to generating a plurality of matched filter vectors from a reference PN sequence as being a necessary state of a high data rate and correlation flexibility. That is, the state value of the shift register of the FF PN generator and the masking value of the MASK register 412 are combined by the masking circuit 303 and the offset value of new stage is used to produce the matched filter vectors (see col. 8, lines 29-44 and Fig. 4). Accordingly, Burns merely shows a masking circuit.

Furthermore, Burns does not teach or suggest the relation mapping between the primary scrambling code and the secondary scrambling code as in the present invention. Rather, Burns uses a code generated by shifting the same scrambling code. In contrast, the present invention uses a plurality of scrambling codes in a base station in W-CDMA. In addition, as shown in Fig. 1 of Burns, the initial value of the FF PN generator is the value inputted from the state register 206. On the contrary, the present invention loads a separate initial value for the primary scrambling code.

In addition, Tsg-Ran also does not teach generating a secondary code by shifting a primary code as the present invention. Tsg-Ran only indicates the settled shifting relation in the

primary scrambling code. Furthermore, Tsg-Ran moves the output sequence through masking about the primary scrambling code.

Accordingly, it is respectfully submitted independent claims 1, 3, 4, 7 and 14 and each of the claims depending therefrom are allowable.

In addition, new dependent claims 17-19 have been added to set forth the invention in a varying scope, and Applicants submit the new claims are supported by the originally filed specification. For example, new dependent claims 17 and 18 correspond to the tables shown in Figs. 7 and 8, respectively.

### **CONCLUSION**

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney, **David A. Bilodeau**, at the telephone number listed below.

Serial No. 09/637,698  
Reply dated **August 11, 2004**  
Reply to Office Action dated March 11, 2004

Docket No. HI-0006

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,  
FLESHNER & KIM, LLP



Daniel Y.J. Kim, Esq.  
Registration No. 36,186  
David A. Bilodeau, Esq.  
Registration No. 42,325

P.O. Box 221200  
Chantilly, Virginia 20153-1200  
703-766-3701 DYK/DAB:knv  
**Date: AUGUST 11, 2004**

**Please direct all correspondence to Customer Number 34610**

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